

# South Carolina's Current Developments



*Home of the first soil conservation district plan...February 4, 1938*

USDA-Natural Resources Conservation Service

October 2003

*From the Office of the  
State Conservationist*

**Walter W. Douglas**



## ***In this issue....***

Foreign Ag Officials Visit  
South Carolina.....pgs. 2-3

EQIP at Homestead Poultry  
Farm in Aiken.....pg. 5

International Lecturer  
Conducts SC Livestock  
Behavior  
Workshop.....pg. 6

2003 SC Earth Team Scores  
Over 20,000 Hours!.....pg. 8

Conservation Partners  
Participate in Signing  
Ceremony  
.....pg. 9

Dear NRCSers,

**A**s you probably know, we are operating under a continuing resolution, meaning we don't have an official operating budget for FY '04. I encourage employees to be optimistic about our budget situation, and if you do spend, do so frugally. Most importantly, keep a positive attitude and try to look beyond the individual programs contained in the farm bill and focus on overall conservation goals in your county. We have faced budget crunches before and always find a way to carry on and accomplish our goals.

At the end of this productive fiscal year, I was pleased to learn that South Carolina's Earth Team had a record-breaking year for number of volunteer hours! Our Earth Team volunteers donated 20,000 hours throughout the Palmetto State encompassing a variety of conservation related activities. I am proud of our volunteers and the work they do to help protect our natural resources—all because they truly believe in protecting soil and water resources.

Finally, I want to thank you all for your participation and enthusiasm at the recent small group meetings regarding TCAS and direct charge procedures. As with any new program or procedure, changing old habits can be frustrating. But your attitude and willingness to adapt to change are what have kept our agency so strong.

More importantly, I want to thank you for your honesty and openness during discussions that were held at each meeting. The open dialogue allowed employees to express concerns, discuss problems, and ask some tough questions. Rest assured that all your comments were recorded and will be addressed in some fashion. As your state conservationist, I continuously want to know your ideas on how we can improve operations within the state and am always open to your suggestions.

I look forward to a great FY 2004 and another year of outstanding conservation assistance in South Carolina.

# Notes from the Field

## International Agriculture Officials Visit South Carolina NRCS

By Sabrenna Bennett, public affairs assistant, NRCS

As countries in the former Soviet Union work to rebuild new democratic nations, modern and innovative ways of producing a stable economy are being explored. One such area is agriculture. On August 28, 2003, four officials from the country of Kyrgyzstan (Central Asia former Soviet Republic) came to York County, South Carolina, to explore issues in water and land resource management. The visitors came through the U.S. Department of State International Visitors Program, which strives to help leaders from abroad increase their knowledge of their professional fields. Two water department heads, a Chief Engineer for a water project company, and a Deputy Governor were taken on a guided tour of three local sites, hosted by NRCS District Conservationist Maryann Trent. Two language interpreters were also present, and assisted in translating questions and discussions.

*Stacey's Greenhouse*, John and Evelyn Edmonds turkey farm, and *the Bush-n-Vine* produce farm were visited. During the tours of each operation, the visitors were interested in management, finances, and how water facilities were maintained.

*Stacey's Greenhouse* is one of the largest manufacturers of plants in the Southeast. The company was found in 1970, then averaging an annual profit of \$105,000. In the past 33 years, the company has grown dramatically, reaching an annual profit of 35 million dollars. Their main customers are wholesale retailers, such as Wal-Mart, K-mart, Home Depot, and Lowe's.

The main concern at *Stacey's* was the irrigation of 200 acres of plants. They use overhead spray-

ers and underground wells, which draw water from several small ponds. An average of 250-350,000 gallons of water is used for irrigation each day, and the run-off water is drained back into the ponds.

The management, maintenance and production of livestock were discussed at John and Evelyn Edmond's turkey and cattle farm. The mother and son operation raises turkeys from the age of one day old to 6 weeks. The farm has 105,000 turkeys, and the production site covers about 21 acres. The farm also raises purebred Angus cows, and employs several conservation practices, such as prescribed grazing and water troughs, to improve water quality and ensure the re-growth of grazing lands.



Mary Ann Trent, York district conservationist (in blue shirt), explains the importance of water troughs to foreign ag officials at the Edmond's turkey and cattle farm.

The third stop was *Bush-n-Vine* produce farm. It is a 65-acre farm and owner Bob Hall grows and sells a variety of fruits and vegetables, such as strawberries, cantaloupe, peaches, field peas and butter beans. At this site, the main focus also was on irrigation and water management. *Bush-n-Vine's* water supply comes from underground wells, and underground tubing is laid from the well to the crops to irrigate. Fertilizer is added to the water to fertilize the crops through

irrigation.

Lastly, the visitors' final destination was Springs-Stevens Fish Hatchery in Heath Springs, SC, which was hosted by Lancaster NRCS District Conservationist Ann Christie and SC Department of Natural Resources (SCDNR) Technician Richard Bassett.

The fish hatchery was designed to provide a supply of fish for public waters to improve public fishing. The hatchery uses a storage pond to fill the fish-growing ponds by gravity flow, and installed filters to prevent the entering of wild fish. Once fish are fully grown, they are transported from the hatchery to public waters. Christie also explained the stream bank erosion control practices NRCS designed and installed to protect the fishpond dams. The visitors seemed impressed with the hatchery and posed many questions, such as water right laws and the use of water on private property.



## South Carolina's Titan Peach Farms Benefits from Innovative Drip Irrigation System

by Amy O. Maxwell, Public Affairs Specialist

All of these sites were very instrumental in helping the visitors understand modern standards of agricultural productivity. "I hope we were able to show them that even though the farming operations were very different, that the water availability and use was very important," stated Trent. "For any operation to be successful, wise use of water is the key."

The current norms in the Kyrgyz Republic for water distribution are the old Soviet norms, which are not working well since the country has become an independent democracy and is privatizing much of its agricultural land. These visitors not only needed to understand regional issues, but also how systems are run on a national and international level.

In the future, NRCS-South Carolina will continue to support the visiting of leaders from abroad and will provide assistance in educating them on conservation practices that would be beneficial to their agricultural productivity.



*The group visited Bush-n-Vine, a roadside produce stand and 65-acre farm that sells fruits and vegetables.*



*The group also visited Springs-Stevens Fish Hatchery, in Heath Springs, SC, with Lancaster NRCS District Conservationist Ann Christie.*

Chalmers Carr definitely fits the definition of an agricultural entrepreneur. A 4<sup>th</sup> generation peach farmer on his mother's side, he has been involved in the business since he was a child working on his uncle's farm in North Carolina. His education from Clemson University in financial management and agricultural economics armed him with the knowledge, experience, and determination to make it in the peach business. His professionally produced website tells visitors that "*Titan Peach Farms, Inc., nestled in the corner of Edgefield, Saluda, and Aiken counties, is the Southeast's largest most technologically advanced peach operation.*"

Sounds like the culmination of a lifetime of hard work, right? Well, hard work, yes, but Carr has not lived even half his lifetime yet, because he is only in his 30's. He has worked diligently since 1995 to establish his 2500-acre peach farm, along with wife and business partner Lori Anne. The Carr's have worked with NRCS to utilize the Environmental Quality Incentives Program (EQIP) to install an innovative low-pressure irrigation system. Carr says the system was the key to their survival during the drought that plagued South Carolina and his operation for the last 5 years.



*Carr's innovative low-pressure irrigation system helped his operation survive the 5-year drought.*

"I have designed a specialized system for my drip irrigation whereby I use a portable filter system hooked into the irrigation main lines that saves me hundreds of dollars per acre in replacing pipes and filters," explained Carr. "Using low pressure irrigation allows for a more precise water delivery to the peaches and makes a bigger, better product." The benefits of converting to low pressure irrigation mean increased fruit production and water conservation—two important factors at Carr's operation.

Through the assistance of EQIP, Carr has worked closely with Edgefield NRCS District Conservationist Bob Bowie to install 1,445 acres of drip irrigation over the past 6 years. The benefits of low

pressure versus high pressure include water conservation, ease of use, and an increase in fruit diameter, thus resulting in increased profits. "The initial cost to get started with low-pressure irrigation is high (\$1,000 per acre), but once in place, the overall labor and energy costs saved will pay for the system," said Carr. In addition to the benefits to the producer, low-pressure irrigation is better for the environment says Bowie. "Because water delivery is more efficient and precise with a low pressure system, there is less water waste, no runoff, and the water goes right to the root zone."

There are many factors to consider when installing low-pressure systems, including the topography of the land, the water source location, as well as location of a power source. Ninety-nine percent of Carr's water source comes from ponds. He uses a system of water delivery that comes from micro-jets. Another benefit to the low-pressure system is that it requires less labor to run the system. In fact, most of the control of the system comes from inside an office containing a complex network of computers. Carr has relied on technology to advance his peach operation and so far, it has paid off. "Farming is more than understanding the land—you have to remember that it is a business and run it as such," said Carr. "I am taking a lot of risks now while I am young, but so far I have been lucky, and it's paid off."

Bowie congratulates Carr for his innovation and strong conservation ethic, particularly for water conservation. "The Carr's are a fine example of how a young farm family can be successful and make a living off the land, while also taking care of natural resources," he commented.

Carr isn't stopping now. He has hopes to convert his entire operation to 100% low-pressure irrigation over the next 6 years. And his love of farming and his desire to preserve the future of farming goes beyond South Carolina. Carr is involved on a national level in garnering support and increased funding for agriculture, and recently returned from a trip to Washington, D.C. "In order to save the culture of farming, it has to be profitable, and we must change the perception of farming to make

it more attractive to young people." Carr has no regrets and looks forward to a successful future in farming for himself, his wife, and two children.

For more information about low-pressure irrigation, contact the Edgefield NRCS office at (803) 637-3220. For more information on Titan Farms, visit their website at [www.titanfarms.com](http://www.titanfarms.com).



*NRCS District Conservationist Bob Bowie (left) discusses the Titan Farms irrigation system with owner Chalmers Carr.*



*Ripe Titan Farms peaches.*



## EQIP at Homestead Poultry Farm in Aiken

*By Sabrenna Bennett, public affairs assistant, NRCS*

Managing large livestock operations has become a very demanding job for many farmers, and utilizing conservation practices has become a must to maintain productivity. At Homestead Poultry Farm in Aiken, SC, owner Wayne Furtick understands this demand, and practices waste management through the NRCS Environmental Quality Incentive Program (EQIP), with technical assistance from NRCS District Conservationist David Howe. NRCS designed a waste management plan for the farm within guidelines set by the SC Department of Health and Environmental Control (SCDHEC).

Homestead Poultry Farm consists of 600 acres of production and has four chicken houses, measuring 500 x 50 ft. each. Each house holds 24,500 chickens, with a total of 98,000 chickens on the entire farm. Homestead receives the birds from Columbia Farms at one day old and raises them for seven weeks, until they are approximately 6 ½ lbs. Once the chickens are of size, they are sold to a poultry manufacturer, House of Raeford, priced per bird. Furtick then receives a new flock of chickens. He raises 5 1/2 flocks a year.

The chickens consume over 2 million gallons of water and produce 622 tons of waste each year. Once this massive amount of waste accumulates, each house is cleaned out and the waste is then used as fertilizer for Bermuda pasture. It is placed into a fertilizer spreader, which has sprayers on each side to distribute the waste evenly 8 to 10 feet.

By using waste as fertilizer, Furtick not only increases the productivity of his pasture, but also saves on the cost of fertilizer. "By fertilizing his pasture with waste, Furtick saves an estimated \$18,000 a year in fertilizer costs," stated Howe.

Homestead Poultry Farm sits on land that has been in Furtick's family for several generations. The acreage is part of a King of England land grant, which started out at 5000 acres several centuries ago. Furtick loves what he does and is a strong believer in family farming. "Farming is for families,"

stated Furtick. "It is one of few occupations that keeps everybody close."

In the future, Furtick, with assistance from NRCS, plans to increase his farm size by adding four more chicken houses over the next three years. And even though he has had challenges as a farmer, when asked what advice he would give a young farmer starting out, his reply was, "If I had to do it all over again, I would."

For more information, please contact the Aiken Field Office at (803) 649-4221.



*Wayne Furtick raises a total of 98,000 chickens per flock, and uses EQIP to effectively manage waste.*



*Aiken NRCS District Conservationist David Howe (left) discusses EQIP practices with Furtick.*

## International Lecturer Conducts Livestock Behavior Workshop in South Carolina

*USDA-NRCS Hosted 3-day Event in Fort Mill*

USDA-NRCS hosted a workshop on livestock and wildlife behavior as it relates to food and habitat selection. The workshop covered relationships among soils, plants, herbivores, people and the management of ecosystems and was held at the Anne Springs Close Greenway. Dr. Fred Provenza (Utah State University), internationally recognized researcher and lecturer, conducted the 3-day workshop which concluded September 18, 2003. Dr. Provenza is the leader of a research and education project entitled Behavioral Education for Human, Animal, Vegetation and Ecosystem Management (BEHAVE).

Fifty participants including livestock producers, university Extension specialists, and natural resource managers from the Carolina's, Virginia, Texas, Alabama, Georgia, and Florida attended. South Carolina Grasslands Conservation Coalition Chairman and BEHAVE workshop moderator Dr. James Riley Hill was pleased with the workshop's success. "The audience interacted with Dr. Provenza and asked some very good questions which led to an open discussion among the group and a better understanding of animal behavior and its implications for ecosystem management," said Hill.

Additional information on the BEHAVE project may be found at [www.behave.net](http://www.behave.net).



*The BEHAVE workshop was held at the Anne Springs Close Greenway in Ft. Mill.*



*Dr. Fred Provenza discussed livestock and wildlife behavior with participants at a 3-day session held in Fort Mill, SC.*

### South Carolina Conservation District Employees Association (SCCDEA) Cookbooks!

*Order yours today!*

Orders are being taken for the SCCDEA-produced hardback, professionally printed cookbook featuring over 500 SC recipes from the Conservation Partnership (NRCS, FSA, RD, SCDNR, and district employees and commissioners). This would make a great Christmas gift and the cookbooks will be ready December 9, 2003!

Contact Ann Spake in the Anderson office at (864) 224-2126, ext. 101, or [ann.spake@sc.usda.gov](mailto:ann.spake@sc.usda.gov) for an order form.







# Conservation Partnership News



*South Carolina Department of Natural Resources- Land, Water, and Conservation Division  
and South Carolina Association of Conservation Districts*

## Environmental Learning Model Comes to South Carolina

The South Carolina Department of Education has joined efforts with several state education agencies, including SCDNR, to improve student achievement by using the environment as an Integrating Context for Learning (EIC). Eleven schools in South Carolina are involved in the EIC Model™ pilot program representing diverse economic, social, academic and geographic backgrounds and features. The EIC Model empowers students to take responsibility for building a deeper understanding of the world around them by using the natural environment as the classroom.

Mentors were recruited from state agencies (SCDNR, SCDHEC, State Dept. of Education and SC Parks, Recreation and Tourism). Also, mentors were recruited from Federal agencies, local non-profit groups including the Beaufort Conservation District and private industry. The SCDNR-Land, Water and Conservation District Division is providing three employees to serve as EIC mentors: Joy Boswell at Gilbert Middle School (Lexington District); Doug Edmonson at Lugoff-Elgin Middle School (Kershaw District); and Michelle Crosby at Forest Circle Middle School (Colleton District). An EIC mentor is committed to assisting EIC schools within their local community, helping students achieve standards-based learning goals, taking greater responsibility for their own learning, developing essential life skills and increasing their ability to make good environmental choices.

A core team of four teachers (one from each major discipline) works to integrate English language arts, math, social studies, and science through hands-on methods to teach students to think and reason in a different way—using students' cognitive, kinesthetic, affective, and sensory abilities. Each school's core team also has two mentors (a government environmental agency contact and a community partner with environmental interests) who assist the school in making community contacts and finding the expertise needed to implement the environmental theme chosen by the school. For more information, visit [www.seer.org/pages/eic.html](http://www.seer.org/pages/eic.html).

## View Autumn Leaf Colors at State Heritage Preserves

Each autumn, South Carolina's hardwood forests change from hues of green and start showing their true colors. This natural phenomenon occurs every year, painting the countryside with beautiful shades of yellow, orange, red, pink, bronze, purple and brown. Adding to fall's show is a carpet of purple and gold wildflowers.

While the effect can be simply breathtaking, the explanation behind the color change is anything but simple, according to a state natural resources botanist.

"Leaf color is caused by the interaction of sunlight with chemical materials called pigments found inside the leaves," said Dr. Bert Pittman, botanist with the SCDNR Heritage Trust Program. "Pigments that produce intense autumn color are present in leaves the entire growing season, but during spring and summer, the green pigment dominates and covers the other pigments. So green is the predominant color we see until autumn."

Pittman recommends visiting one of South Carolina's mountain heritage preserves to observe fall colors and autumn wildflowers like goldenrod and purple mistflower.

For more information, write to Heritage Preserves, DNR, PO Box 167, Columbia, SC 29202, call (803) 734-3893 in Columbia or check out a list of heritage preserves on the DNR Web site at [www.dnr.state.sc.us/wild/heritage/hp/hpmap.html](http://www.dnr.state.sc.us/wild/heritage/hp/hpmap.html).



Heritage Trust's mission is to protect South Carolina's rare plants, animals, plant communities and other features of the state's natural and cultural heritage. Formed by state law in 1976, Heritage Trust has protected 80,217 acres on 66 state heritage preserves located throughout South Carolina.

# Second National Conference on Grazing Lands

December 7 - 10, 2003  
Nashville Convention Center  
Nashville, Tennessee

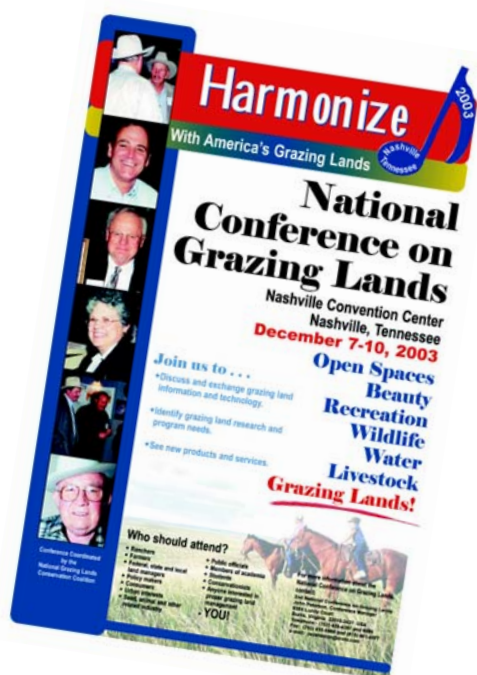
A conference designed to provide a forum for discussion  
of the benefits of grazing.

*The conference theme is  
"Harmonize with America's Grazing Lands"*

The conference will provide for exchange of technical and management information, identification of research needs, marketing of products, services and other benefits of grazing. The need for sound, scientific technical assistance will be emphasized. Increased public awareness of the economic and environmental benefits of grazing is an objective.

**For more information, visit**  
[www.sc.nrcs.usda.gov/programs/nat\\_glci\\_conf.html](http://www.sc.nrcs.usda.gov/programs/nat_glci_conf.html)

Sponsored by the Grazing Lands Conservation Initiative  
and the Society for Range Management



## South Carolina's Earth Team Sets Record with '03 Volunteer Hours!

The numbers are in, and the total for South Carolina's Earth Team came to over a whopping 20,000 donated volunteer hours! That means that volunteers from across the Palmetto State gave their time and energy to build nature trails, test water quality, answer questions at conservation information exhibits at county fairs, and many other activities that help promote the importance of soil and water conservation.

There are several offices and individuals that deserve recognition for their outstanding efforts this year. They include—

### Volunteer group with the most hours for '03:

**1<sup>st</sup> place:** Farm Safety Day Group in Orangeburg= 2,637 hours!

**2<sup>nd</sup> place:** Thurmond Highschool FFA (Edgefield)= 2,289 hours!

### Individual with the most hours for '03:

**1<sup>st</sup> place:** Hayne Davis, Newberry County= 251 hours!

**2<sup>nd</sup> place:** Gene Dobbins, Foothills RC&D= 220 hours!

### Largest increase in hours from '02 to '03:

Newberry SWCD Group= increased by 479 hours!

Foothills RC&D Council= increased by 194 hours!

Beaufort SWCD Group= increased by 165 hours!

Thanks to all offices who used volunteers this year to get conservation on the ground! At this time, South Carolina has all but 7 offices using Earth Team volunteers. Hopefully, by this time next year, we will have 100 percent participation by all offices! We have set a high standard with the total number of hours we recorded this year, but that just means we have to beat it next year!



**Earth Team volunteers make a world of difference!** Way to go South Carolina Earth Team. For assistance or more information on the Earth Team, contact state coordinator Amy Maxwell at (803) 765-5402 or [amy.maxwell@sc.usda.gov](mailto:amy.maxwell@sc.usda.gov).



## South Carolina Landowners Now Have More Conservation Assistance

*Technical service provider agreements signed between NRCS and partners*

by Amy O. Maxwell, Public Affairs Specialist

The USDA Natural Resources Conservation Service (NRCS) in South Carolina held a signing ceremony with partner agencies who agreed to provide the agency with implementation and monitoring assistance related to Farm Bill conservation program activities.

NRCS will use contribution agreements to obtain technical, financial, and in-kind donation of services from certified technical service providers. This will help with the increased workload acquired by the agency after the signing of the 2002 Farm Bill. USDA will procure assistance from technical service providers to meet its own responsibilities in delivering conservation program technical assistance.



*SCDNR and NRCS signed a contribution agreement to implement and monitor Farm Bill activities.*

The agencies involved in the agreement include the South Carolina Department of Natural Resources-Land, Water, and Conservation Division and (SCDNR-LWCD) and Wildlife Management Section (SCDNR-WMS); Soil and Water Conservation Districts (SWCD's), Clemson Extension Service (CES), and the South Carolina Forestry Commission (SCFC).

The partner agencies signing the agreement all have a mission similar to NRCS—helping people conserve, improve, and sustain natural resources. The agreements are 50/50 with all parties agreeing on the work items and conservation goals, and cost-sharing to get the work done.

Some of the work planned involves assistance with status reviews on existing Environmental Quality Incentives Program (EQIP) contracts, and EQIP program support in two pilot cluster areas (including Sumter, Lee, Clarendon, and Williamsburg counties as well as Barnwell, Bamberg, Allendale, and Hampton). In Oconee County, Clemson Extension will help deliver and manage the EQIP program. Wetland Reserve Program (WRP) boundaries are also being monitored

by partner agencies. The final agreement involves the South Carolina Forestry Commission developing detailed prescribed burn plans for Farm Bill program participants enrolled in the Wildlife Habitat Incentives Program (WHIP).

For more information on using TSP's, contact your local USDA Service Center or visit <http://techreg.usda.gov>.

## W.T. Batson Nature Walk Planned

Professor Wade T. Batson has been a mentor and friend to so many of the state's conservation community. Conservation and nature enthusiasts don't want to miss this opportunity! Batson has been influential in the Midlands community and taught many USC and Clemson students—and even their children. This will be a chance to reconnect or connect for the first time with someone whose contributions to the conservation and education about our state's flora is wide and deep.



*Wade T. Batson*

**When:** November 23, 2003

**Where:** Harbison State Forest (From Columbia, travel west on Broad River Road (US 176) about five miles, over I-20 Harbison Forest on the right; enter 2<sup>nd</sup> entrance, half mile from 1<sup>st</sup> entrance). Look for a sign!

**Time:** 2:30-3:30 (walk); 3:30-4:30 (reception), talk to Dr. B.

**Cost:** \$12.00/person

*Send checks made payable to "W.T. Batson Nature Walk" to:* Ms. Ann Cameron, Office of the Dean, College of Science and Mathematics, University of South Carolina, Columbia, SC 29208.

**Nature Walk Leader:** Mr. Mark A. Dutton (former student of Dr. B's)

*The proceeds from this excursion will be contributed to the W.T. Batson Endowment for the A. C. Moore Herbarium and Garden.*

## Personnel News

### Resignation

*Derrick, Robert*, 0457-09, Soil Conservationist, effective September 19, 2003.

### Student

*Goza, Erica*, 0457-07, conversion to career conditional, effective September 7, 2003, Walhalla.

### Fall Facts and Leaf Viewing.....

#### Did you know?

- The nation's most visited scenic highway, the Blue Ridge Parkway, will be traveled by more than one million people during October -- most to view fall foliage.
- The Parkway, a 470-mile stretch of road from the Shenandoah National Park in Virginia to the entrance of the Great Smoky Mountains National Park in North Carolina, plays host to more than 20 million people each year.
- The highest point on the Parkway is Richland Balsam, outside Asheville, NC. The highest point in the U.S. east of the Mississippi is Mount Mitchell just north of Asheville and a short drive off the Parkway.

For more info. visit [www.exploreasheville.com/fallfacts.htm](http://www.exploreasheville.com/fallfacts.htm)



Autumn is a second spring when every leaf is a flower.

--Albert Camus